ALS1

OPERATING INSTRUCTIONS

FEATURES

- Increases sensitivity of clamp-on current probes ten times in X10 mode
- Direct reading X1 mode
- Voltmeter input jacks
- Integral ground conductor
- 15 ampere capacity

THEORY OF OPERATION

A magnetic field, proportional to the magnitude of current, surrounds all current carrying conductors. In an AC circuit the magnetic field will induce a current in the jaws of a clamp-on current probe when the jaws are closed around the conductor.

If both conductors of the circuit are enclosed by the jaws of the probe the magnetic fields will cancel and no measurement is possible. Most 120 VAC appliances use two conductor cords which make it difficult to isolate a single conductor for measurement. The ALS1 provides temporary separation of conductors to facilitate measurement of current.

OPERATION

1. Plug the ASL1 into a grounded type 120VAC receptacle. If a grounding type receptacle is not available, a 2 to 3 wire adaptor must be used. Maintain ground wire integrity to minimize the possibility of electrical shock.

2. Plug the appliance line cord into the end of the ALS1 and turn on the appliance.

3. Place the jaws of the clamp-on current probe through the X1 section of the ALS1. The current being drawn by the appliance can then be read directly from the indicator of the clamp-on probe.

4. If the magnitude of the reading obtained in step 3 is less than one-tenth of the full scale range of the clamp-on current probe, and difficult to read, place the jaws of the probe through the X10 section. The magnitude of the current drawn by the appliance will be the reading on the current probe meter divided by ten.

   Example:

   With the range switch of the clamp-on current probe set to 6AMPS, the meter indicates 5.4 amps, and the jaws of the probe are through the X10 section of the ALS1. The actual current is 0.54 amps (5.4 amps ÷ 10 = 0.54 amps, or 540mA).